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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LUU, AN T

ART UNIT PAPER NUMBER

2816

DATE MAILED: 11/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/014,680

Applicant(s)

KHAWSH, VIJAY

Examiner

An T. Luu

Art Unit

2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1) Responsive to communication(s) filed on 11 December 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-5,7-11,13 and 15-19 is/are rejected.

7) Claim(s) 6,12 and 14 is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

- Certified copies of the priority documents have been received.
- Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation “the output signal coupled to the gate conductor exceeds”, claim 4, lines 3-4, appears to be misdescriptive because figure 3 of the instant application shows the output  $V_o$  coupled to the gate conductor and the output signal  $V_{out}$  coupled to the positive terminal of the comparator. For examining purpose, this limitation is interpreted as “the output signal exceeds”.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-5, 7-11, 13 and 16-19 are rejected under 35 U.S.C. 102(b) as being anticipated by the Alleven reference (U. S. Patent 5,929,664).

Alleven discloses in figure 13 an apparatus comprising a comparator 302 having an output (coupled to gate terminal of N1) and a pair of inputs (positive and negative terminals), wherein the pair of inputs are adapted to receive an output signal produced from the circuit (gate

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control signal via transistor N2) and a reference voltage Vref forward to the circuit, and wherein the output is coupled to a pull-down transistor N2 that is connected to the positive input terminal of the comparator via transistor N2 as required by claim 1.

As to claim 2, figure 13 shows the output signal (Gate Control signal) is coupled to the positive input terminal.

As to claim 3, figure 13 shows the output signal (Gate Control signal) is coupled to the positive input terminal and the reference voltage signal is coupled to the negative input terminal.

As to claim 4, transistor N1 in figure 13 is an n-channel transistor having a source-drain current path between the output signal and ground via transistor N2 and current source Is2, respectively. In operation, transistor N2 is ON when the output of comparator is HIGH whenever the positive terminal (the output signal) exceeds the reference voltage.

As to claim 5, figure 13 shows a current source Is1 coupled in parallel with the pull-down transistor N1 between ground and positive terminal input.

As to claims 7-11 and 13, the scopes of these claims are similar to those of claims 1-5. Therefore, they are rejected for the same reasons set forth above. Specifically, figure 13 shows a circuit comprising current source Is3 and transistor P2 for maintaining a reference voltage Vref between the positive and negative voltage peaks (Vcc and Ground) as required by claim 7. The recitations of claims 8-11 and 13 simply recite the operational results derived from an apparatus recited in claims 1-5.

As to claims 16-19, they are rejected for being reciting method and/or steps derived from an apparatus recited in claims 1-5 noted above.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Alleven reference (U.S Patent 5,929,664).

Alleven discloses all the claimed invention of claim except for an optical signal transmitter coupled to receive the output signal. The above claim claims application wherein the invention could be utilized. It would have been obvious for one skilled in the art to employ the invention in any environment which has practical purpose(s) since it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

***Allowable Subject Matter***

7. Claims 6, 12 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to disclose an apparatus comprising element being configured as recited in claims. Specifically, none of the prior art teaches or fairly suggests "a pull-up transistor"

limitation as required in claim 6; “the comparator is predetermined to preclude a voltage of the output signal from being less than the reference voltage” limitation as required by claim 12; and “the comparator comprises a predefined slew rate and/or gain so that an output voltage from the comparator will not go below a threshold voltage of the pull-down transistor” as required in claim 14.

*Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 703-308-4922. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 703-308-4876. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



An T. Luu  
November 12, 2002